

# BookletChart™

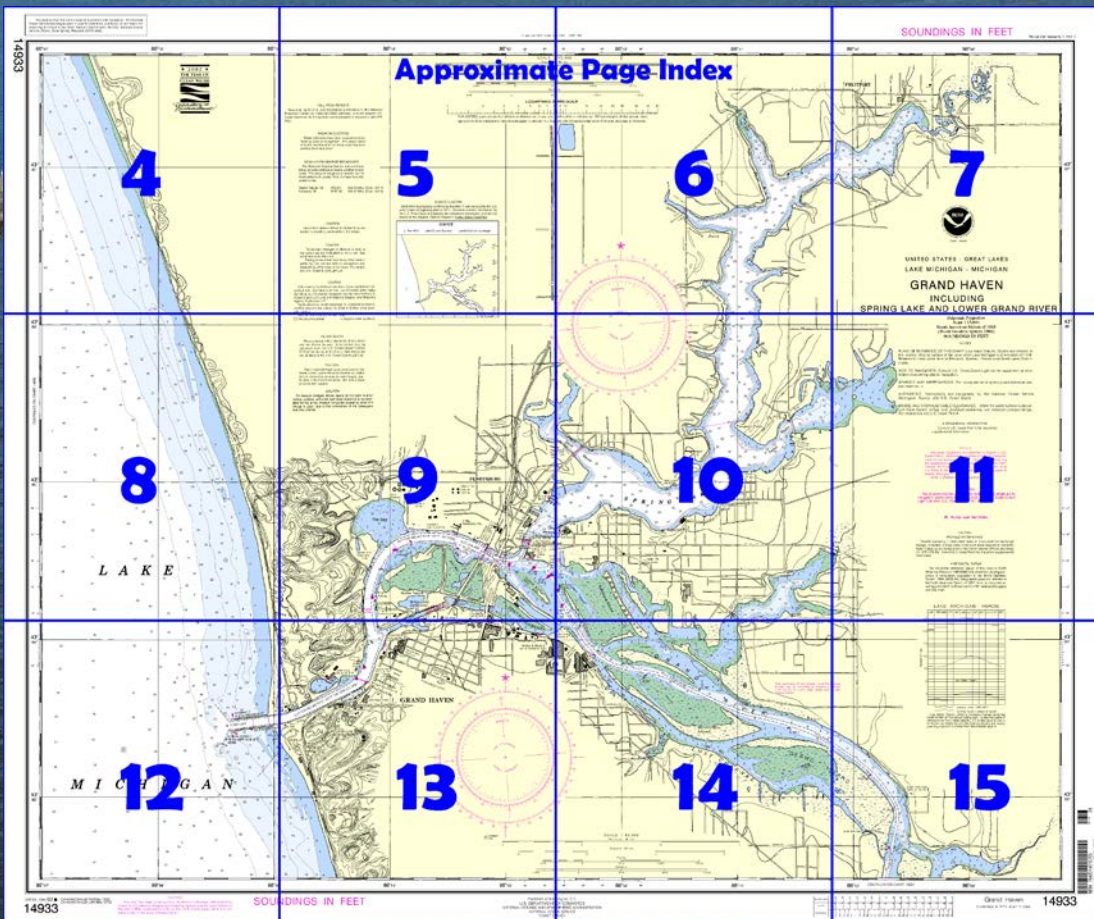


## Grand Haven – Spring Lake and Lower Grand River NOAA Chart 14933

*A reduced-scale NOAA nautical chart for small boaters*  
*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14933>



#### (Selected Excerpts from Coast Pilot).

**Grand Haven, Mich.**, is a city and harbor on the **Grand River**, 43 miles S of Little Sable Point. The towns of **Ferrysburg, Mich.**, and **Spring Lake, Mich.**, front the N side of the river. These communities are not visible from Lake Michigan because of sand dunes and hills immediately N and S of the harbor entrance. The principal commodities handled in the port are coal and sand.

#### **Grand Haven South Pierhead Entrance**

**Light** (43°03.5'N., 86°15.4'W.), 42 feet above the water, is shown from a red fog signal building on the outer end of the S pier; a fog signal is at

the light.

**Channels.**—The dredged entrance channel leads E from deep water in Lake Michigan between parallel piers at the mouth of Grand River and upstream for about 16 miles. The outer ends of the piers are marked by lights. South Pierhead Entrance Light and an inner light on the S pier form a range useful for approaching the harbor. There is a turning basin on the S side of the channel 2.3 miles above the mouth. A side channel extends N to the deep water in Spring Lake 2.7 miles above the mouth. In April-June 2004, the controlling depths were 15.4 feet (21 feet at midchannel) in the entrance and between the piers to the Grand Haven municipal marina (except for lesser depths from 5.7 to 9 feet in a large area off the piers of the municipal marina and at the entrance to South Channel.) A shoal area encroaches into the middle of the channel in about 43°04'00"N., 86°14'11"W., with a depth of 20 feet gradually decreasing to bare at the edge of the channel; a buoy marks the outer edge of the area. From the municipal marina, the controlling depths were 13.9 feet (21 feet at midchannel) to Lighted Buoy 4, thence 17.6 feet in the left half and 8 feet in the right half of the channel to the railroad bridge at Ferrysburg, thence 7 to 12 feet in the turning basin. In 1978, the controlling depths were 15 feet from the railroad bridge to the entrance channel to Spring Lake; thence in June-July 1980, 12 feet into Spring Lake; thence in October 1997, 4 feet from the Spring Lake channel to the C-Way Construction Co. gravel pits at Bass River. The channel limits from Ferrysburg to the upstream project limit are well marked by buoys. The channels are subject to shoaling. Large riprap stones have been placed along the lakesides and ends of the piers, and navigation should not be attempted close to these structures. Mooring to the piers or revetments is prohibited.

The lower part of Grand River has connecting shallow side channels separated from the main river by low marshy islands. Several connected bayous, or bays, have very shallow entrances with deep water inside. The J.B. Sims Power Plant is on Harbor Island. Intake pipes on the W side of the island in the intake mode pose no threat to watercraft. The intakes have a compressed air blowback system to clear the screens. This blowback is capable of capsizing a small recreational vessel. The area is surrounded by rope barriers and is marked by signs. Grand Haven has numerous small-craft facilities along both sides of Grand River, in South Channel, and in Spring Lake. The public docking facility, constructed by the city and the Michigan State Waterways Commission, is on the E side of the river just below the junction with South Channel. Transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out facilities, marine supplies, launching ramps, and harbor master services are available in the harbor. The harbor master monitors VHF-FM channels 16 and 9. Lifts to 50 tons are available for hull and engine repairs.

**Grand Haven, Mich. Danger.**—The J.B. Sims Power Plant is on Harbor Island. Intake pipes on the W side of the island in the intake mode pose no threat to watercraft. The intakes have a compressed air blowback system to clear the screens. This blowback is capable of capsizing a small recreational vessel. The area is surrounded by rope barriers and is marked by signs.

**Currents.**—High-water periods on the Grand River are usually for two months during the spring. During these periods, currents may reach 3 to 5 mph. Currents up to 5 mph should be expected after periods of heavy precipitation, regardless of season.

### **U.S. Coast Guard Rescue Coordination Center** **24 hour Regional Contact for Emergencies**

RCC Cleveland

Commander

9th CG District

Cleveland, OH

(216) 902-6117



# Navigation Managers Area of Responsibility



**NOAA's navigation managers** serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit [nauticalcharts.noaa.gov/service/navmanagers](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## Lateral System As Seen Entering From Seaward

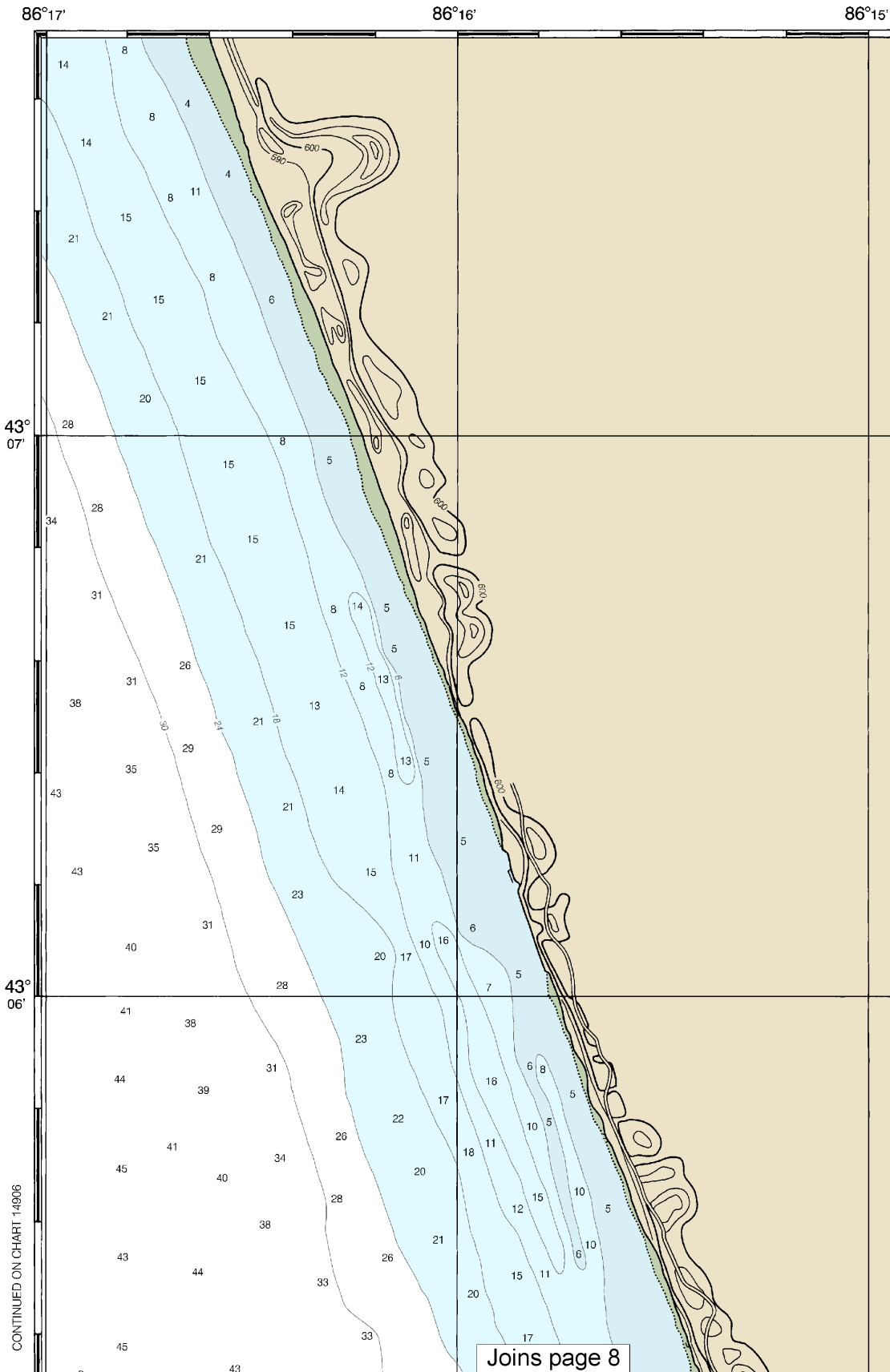
on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

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**MARINER ACTIVATED SOUND SIGNAL**  
GRAND HAVEN SOUTH PIERHEAD ENTRANCE LIGHT - (MRASS) Horn is activated by key 5 times on VHF-FM Ch 83A.

**POLLUTION REPORTS**  
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the Coast Guard facility if telephone communication is impossible (202-267-1531).

**RADAR REFLECTORS**  
Radar reflectors have been placed on the Grand Haven South Pierhead Entrance light and on the Grand Haven South Pierhead Entrance buoy. Individual reflector identification on these aids has been omitted from this chart.

**NOAA WEATHER RADIO BROADCAST**  
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 30 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Grand Rapids, MI	K/G-63	162.550
Hesperia, MI	WWF-36	162.475
West Olive, MI	WXN-99	162.425

**CAUTION**  
Improved channels shown by broken line are subject to shoaling, particularly at the edges.

**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. Local Notice to Mariners.  
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

**CAUTION**  
Limitations on the use of radio signals for marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 1-1.  
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.  
Station positions are shown thus:  
○ (Accurate location)    ◐ (Approximate location)

**RACING BUOYS**  
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

**CAUTION**  
Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

**CAUTION**  
For bascule bridges, whose spans do not operate in the vertical position, unlimited overhead clearance is available for the entire charted horizontal clearance when the bridge is open, due to the inclinations of the deck over the channel.

Joins page 8

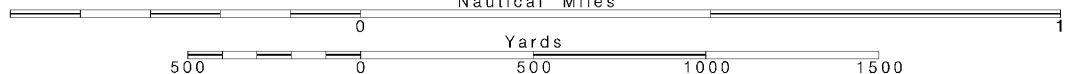
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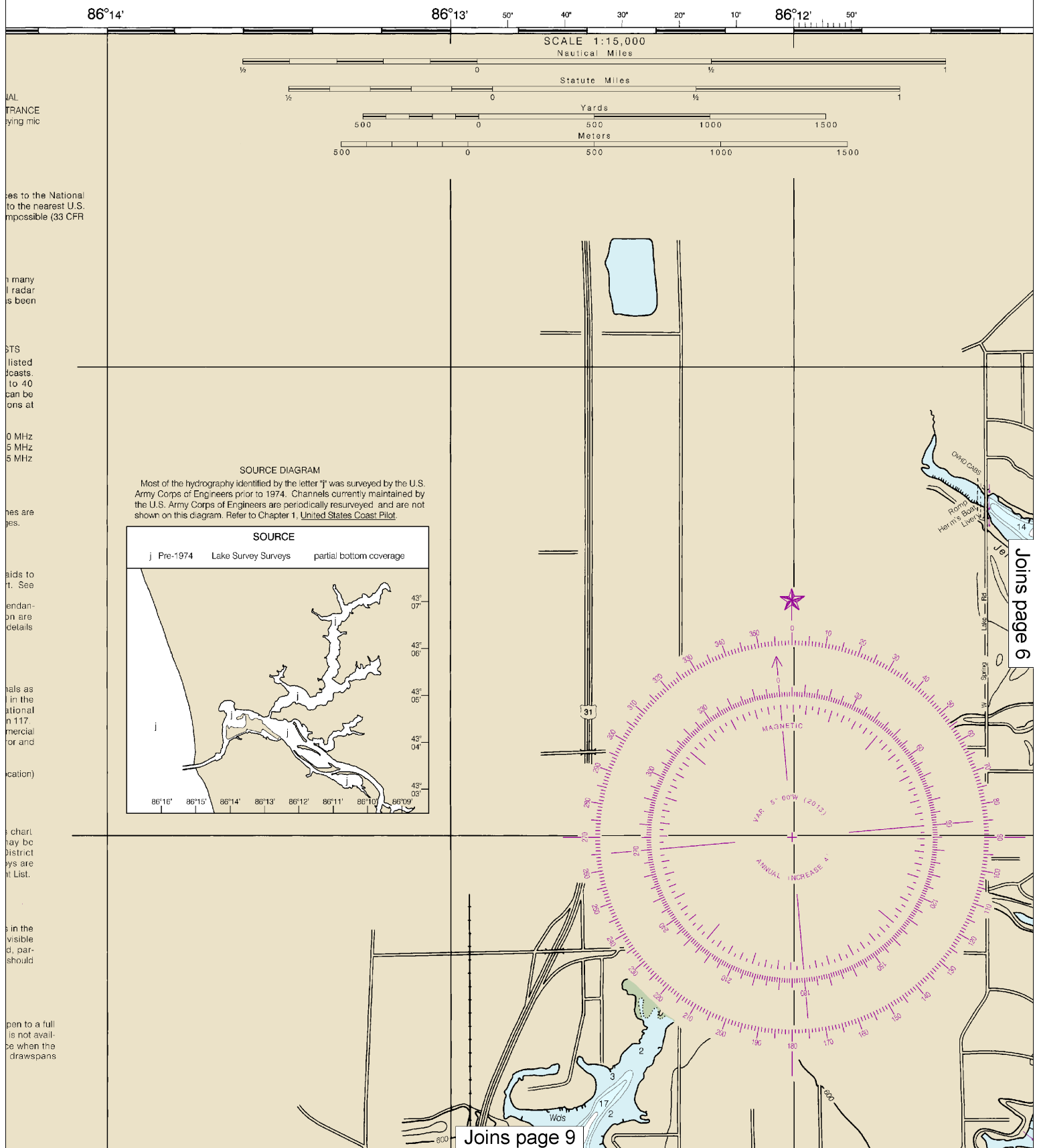
Note: Chart grid lines are aligned with true north.

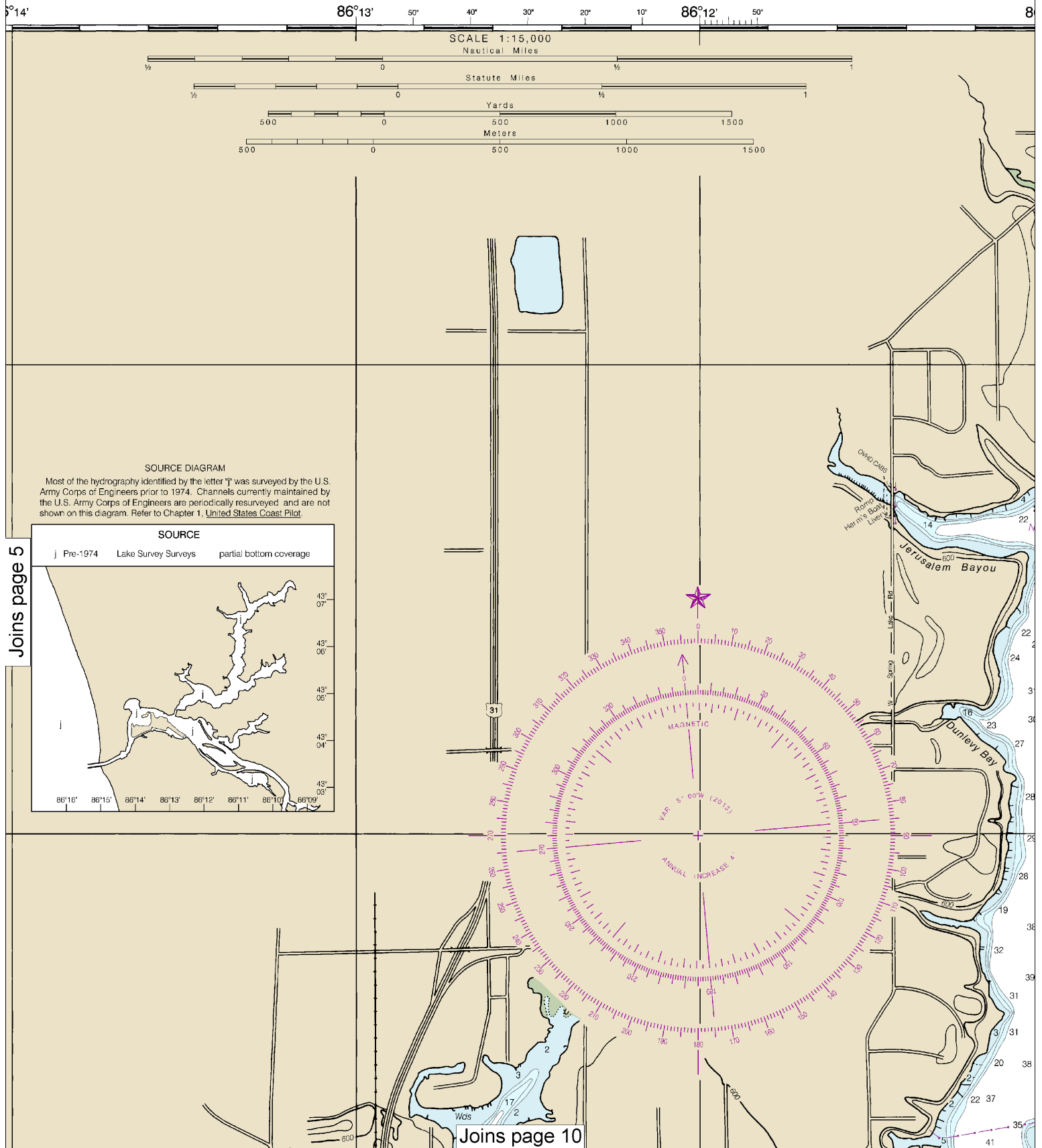
Printed at reduced scale.

SCALE 1:15,000  
Nautical Miles

See Note on page 5.







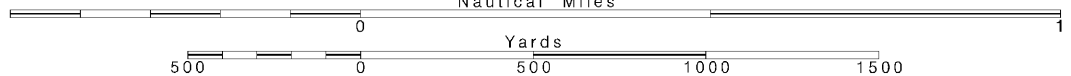
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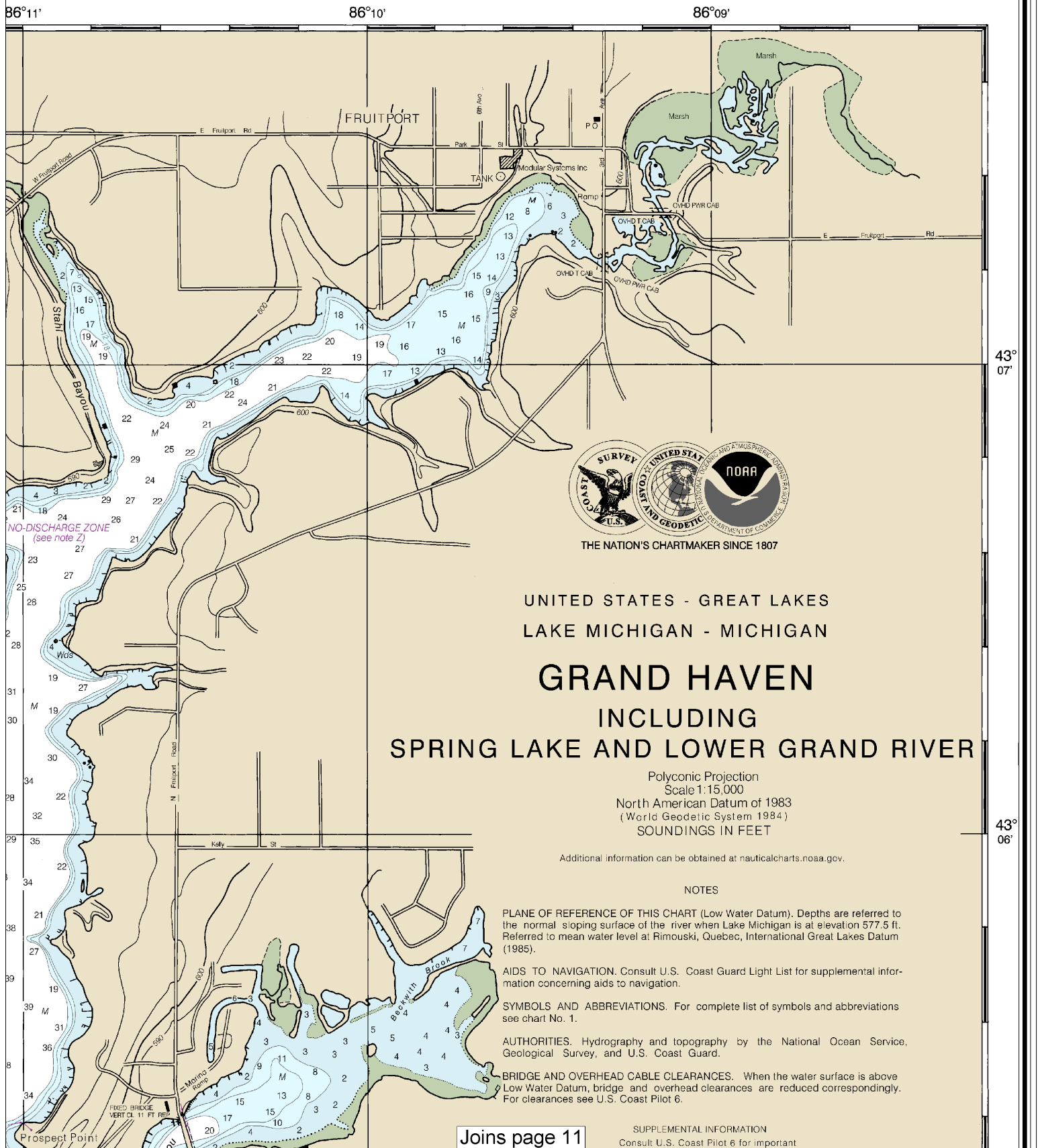
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:15,000  
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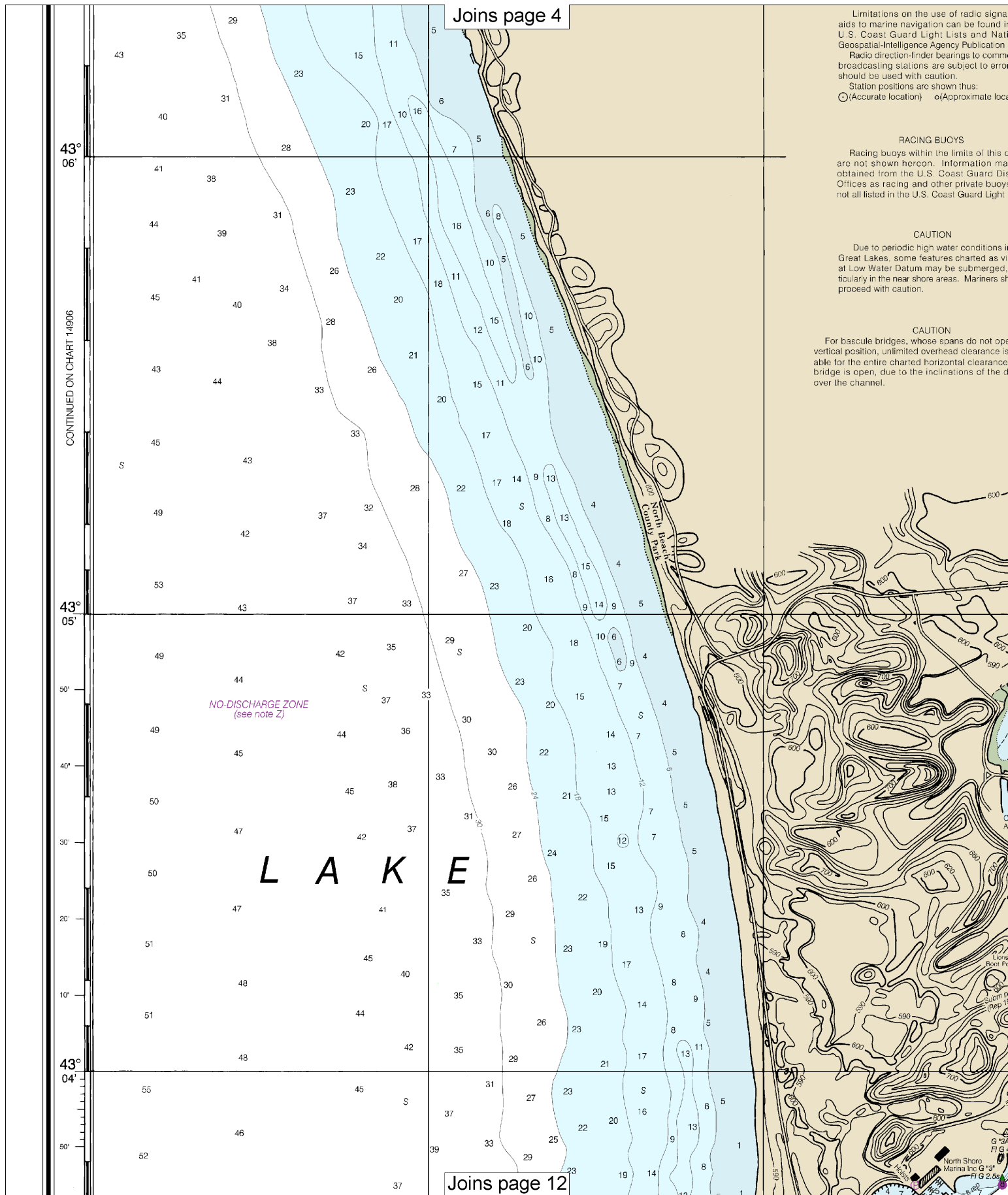
See Note on page 5.





Last Correction: 7/18/2016. Cleared through:  
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)





Joins page 4

Limitations on the use of radio signal  
aids to marine navigation can be found in  
U.S. Coast Guard Light Lists and Natl  
Geospatial-Intelligence Agency Publication  
Radio direction-finder bearings to comm-  
broadcasting stations are subject to error  
should be used with caution.  
Station positions are shown thus:  
○ (Accurate location) ○ (Approximate loca-  
tion)

#### RACING BUOYS

Racing buoys within the limits of this chart  
are not shown hereon. Information may be  
obtained from the U.S. Coast Guard Dis-  
tribution Office as racing and other private buoys  
not all listed in the U.S. Coast Guard Light

#### CAUTION

Due to periodic high water conditions in  
Great Lakes, some features charted as visible  
at Low Water Datum may be submerged,  
particularly in the near shore areas. Mariners should  
proceed with caution.

#### CAUTION

For bascule bridges, whose spans do not operate  
vertical position, unlimited overhead clearance is  
available for the entire charted horizontal clearance  
bridge is open, due to the inclinations of the spans  
over the channel.

NO-DISCHARGE ZONE  
(see note Z)

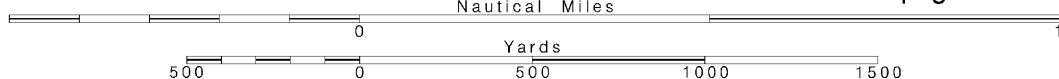
L A K E

Joins page 12

Printed at reduced scale.

SCALE 1:15,000

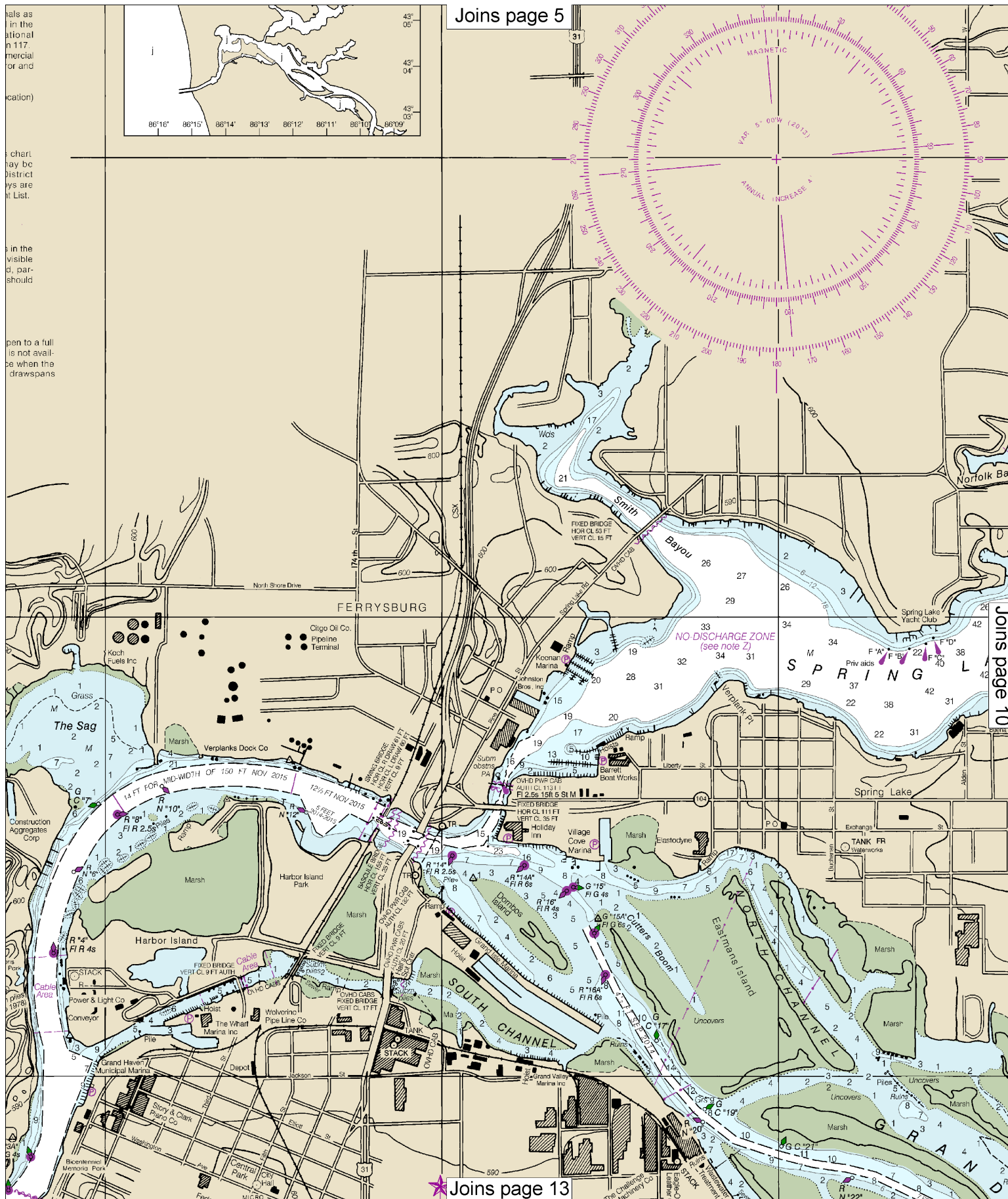
See Note on page 5.





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Joins page 13



Joins page 10



Polyconic Projection  
Scale 1:15,000  
North American Datum of 1983  
(World Geodetic System 1984)  
SOUNDINGS IN FEET

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

## NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum). Depths are referred to the normal sloping surface of the river when Lake Michigan is at elevation 577.5 ft. Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

**AIDS TO NAVIGATION.** Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see chart No. 1.

AUTHORITIES. Hydrography and topography by the National Ocean Service, Geological Survey, and U.S. Coast Guard.

**BRIDGE AND OVERHEAD CABLE CLEARANCES.** When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

## SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan.

## NOTE Z

NOTE 2:  
NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as No-Discharge Zone (NDZ). This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site [http://www.epa.gov/owow/oceans/regulator/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulator/vessel_sewage/).

**WARNING**

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Ⓟ Pump-out facilities

### CAUTION

## POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

## HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.064' northward and 0.191' westward to agree with this chart.

## LAKE MICHIGAN - HURON

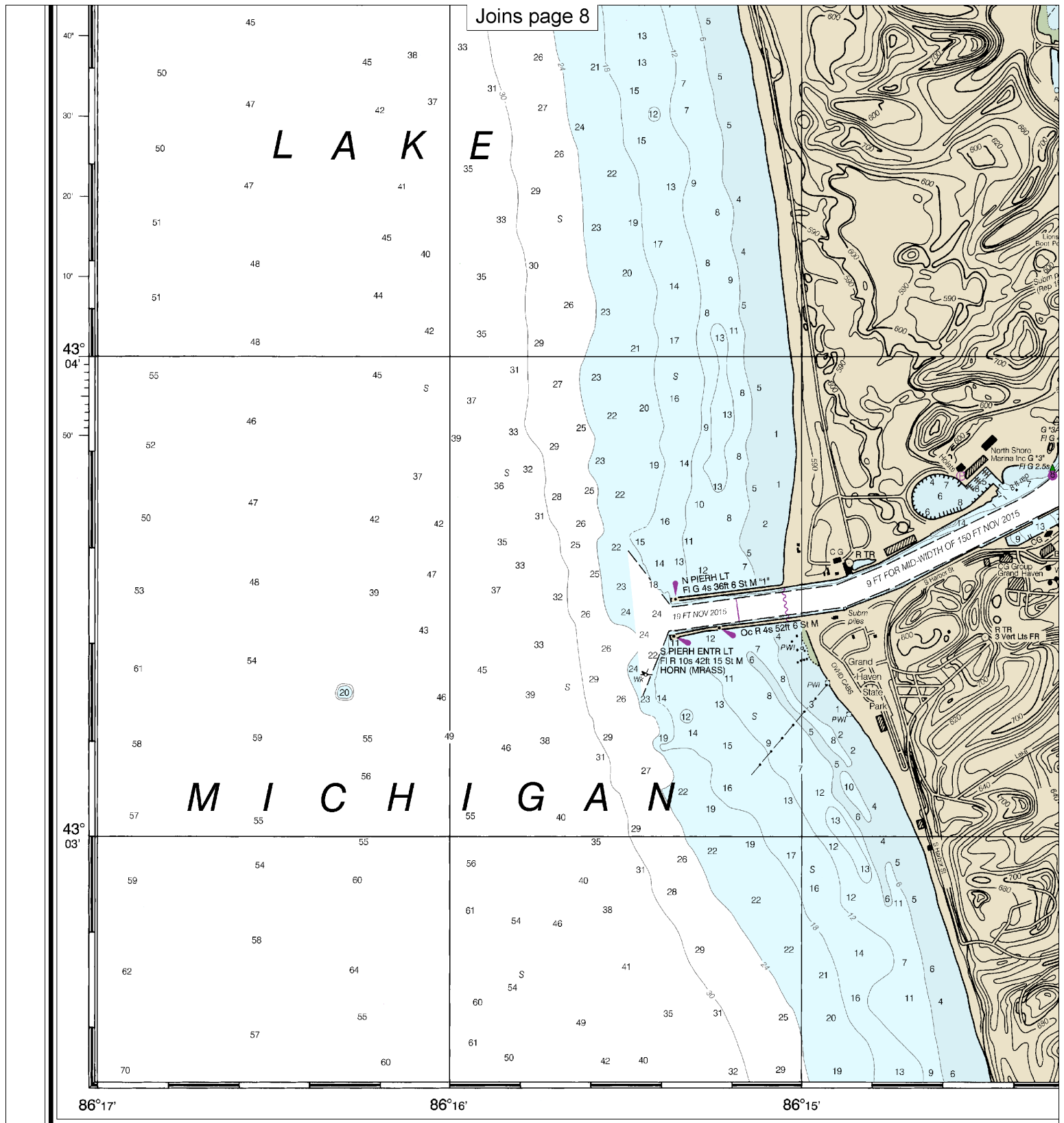
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DISCHARGE ZONE  
(see note Z)

## Aids upstream of the Grand Haven-Ferrysburg





Joins page 8

25th Ed., Sep. 2013

14933

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

Last Correction: 7/18/2016. Cleared through:  
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

SOUNDINGS IN FEET

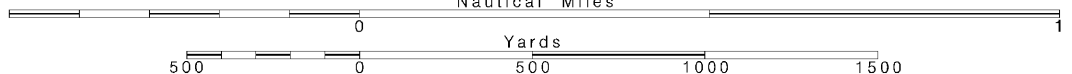
12

Note: Chart grid lines are aligned with true north.

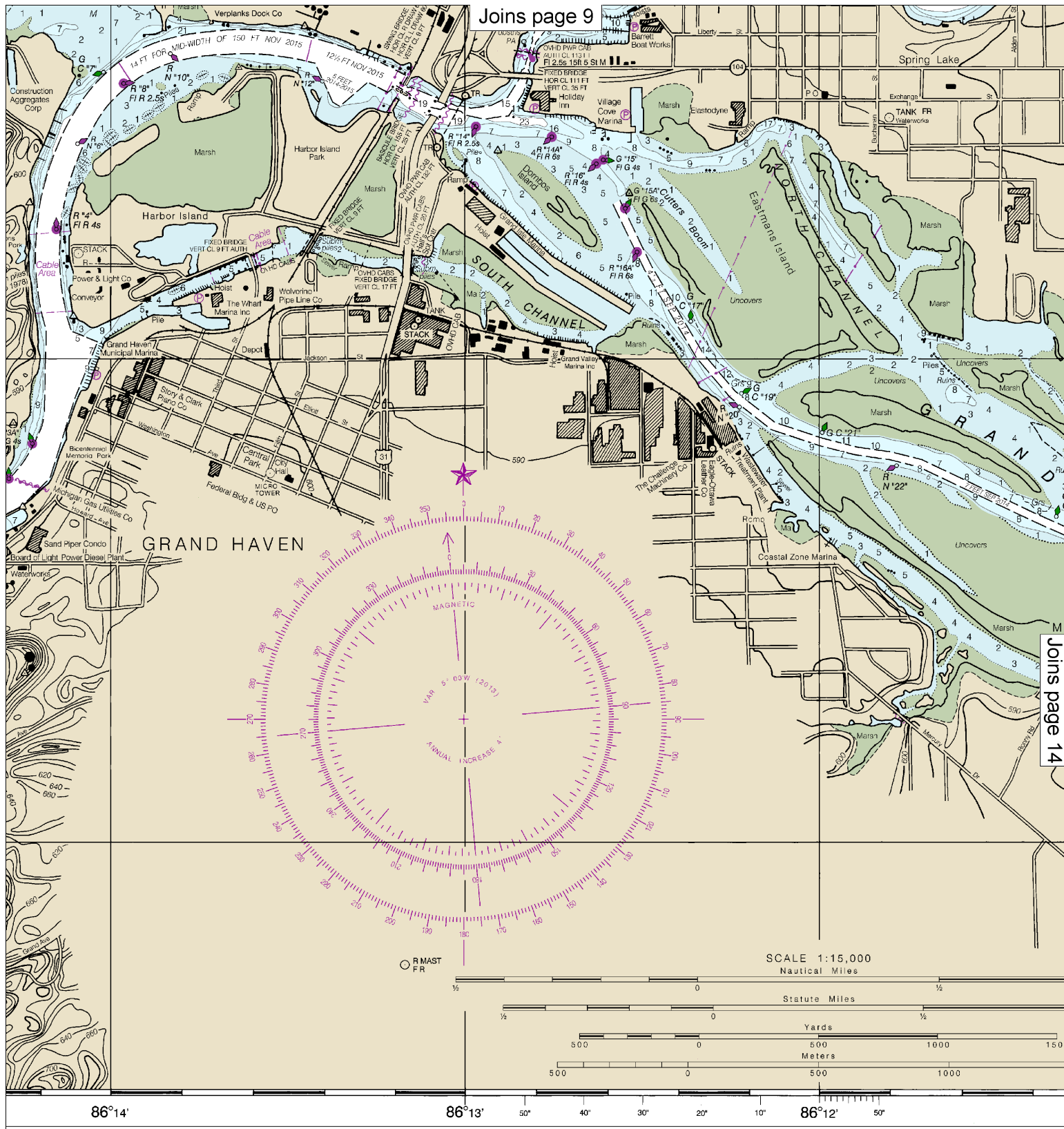
Printed at reduced scale.

SCALE 1:15,000  
Nautical Miles

See Note on page 5.

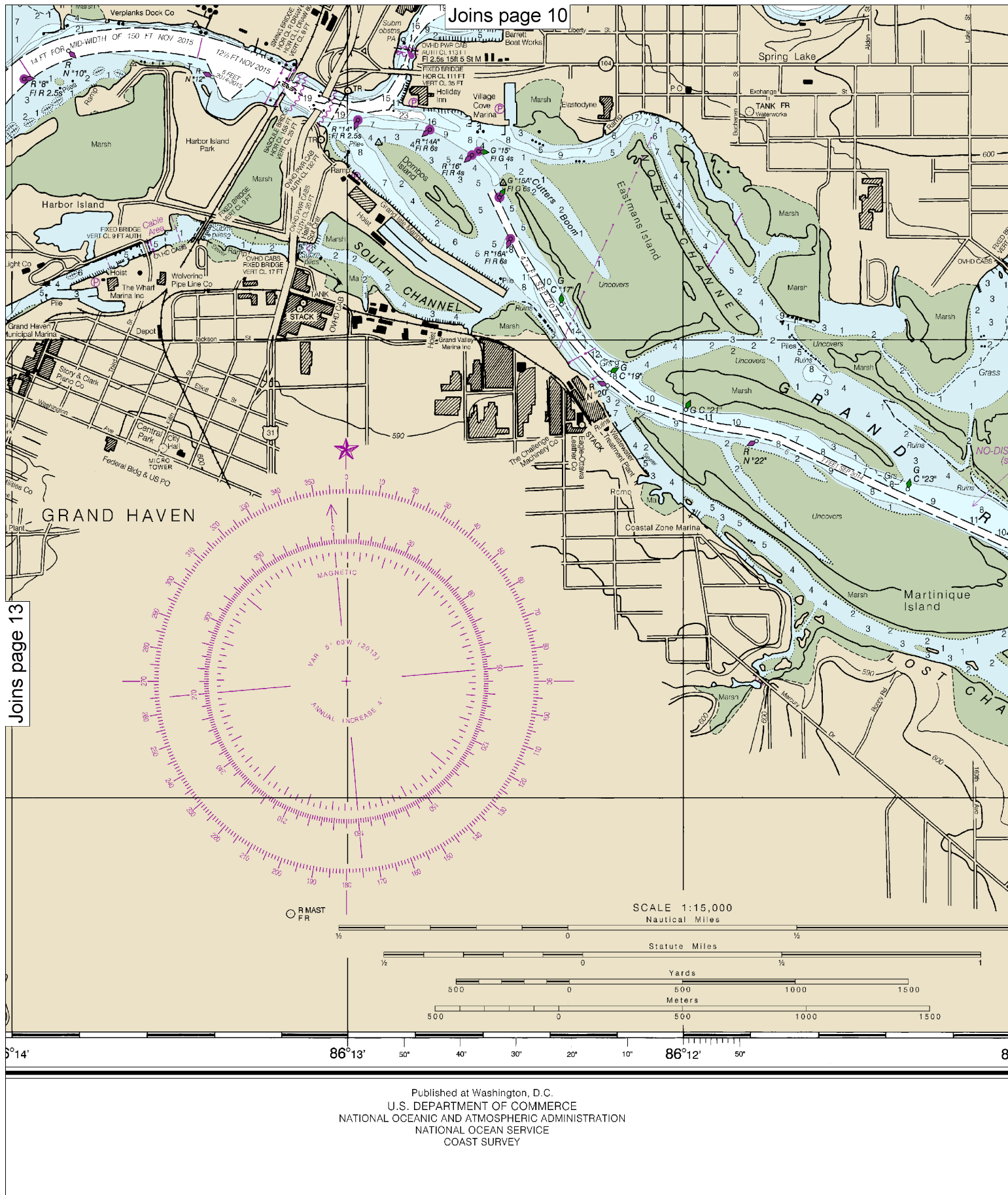






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Published at Washington, D.C.  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY



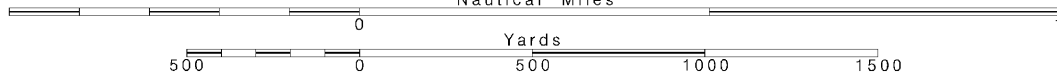
14

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:15,000  
Nautical Miles

See Note on page 5.



to prevent the overboard discharge of sewage treated or untreated or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site [http://www.epa.gov/owow/oceans/regulatory/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/).

**WARNING**

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

**Pump-out facilities**

**CAUTION**

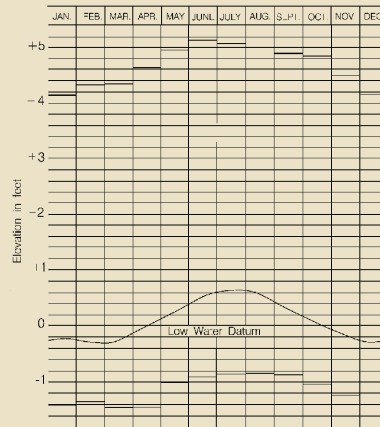
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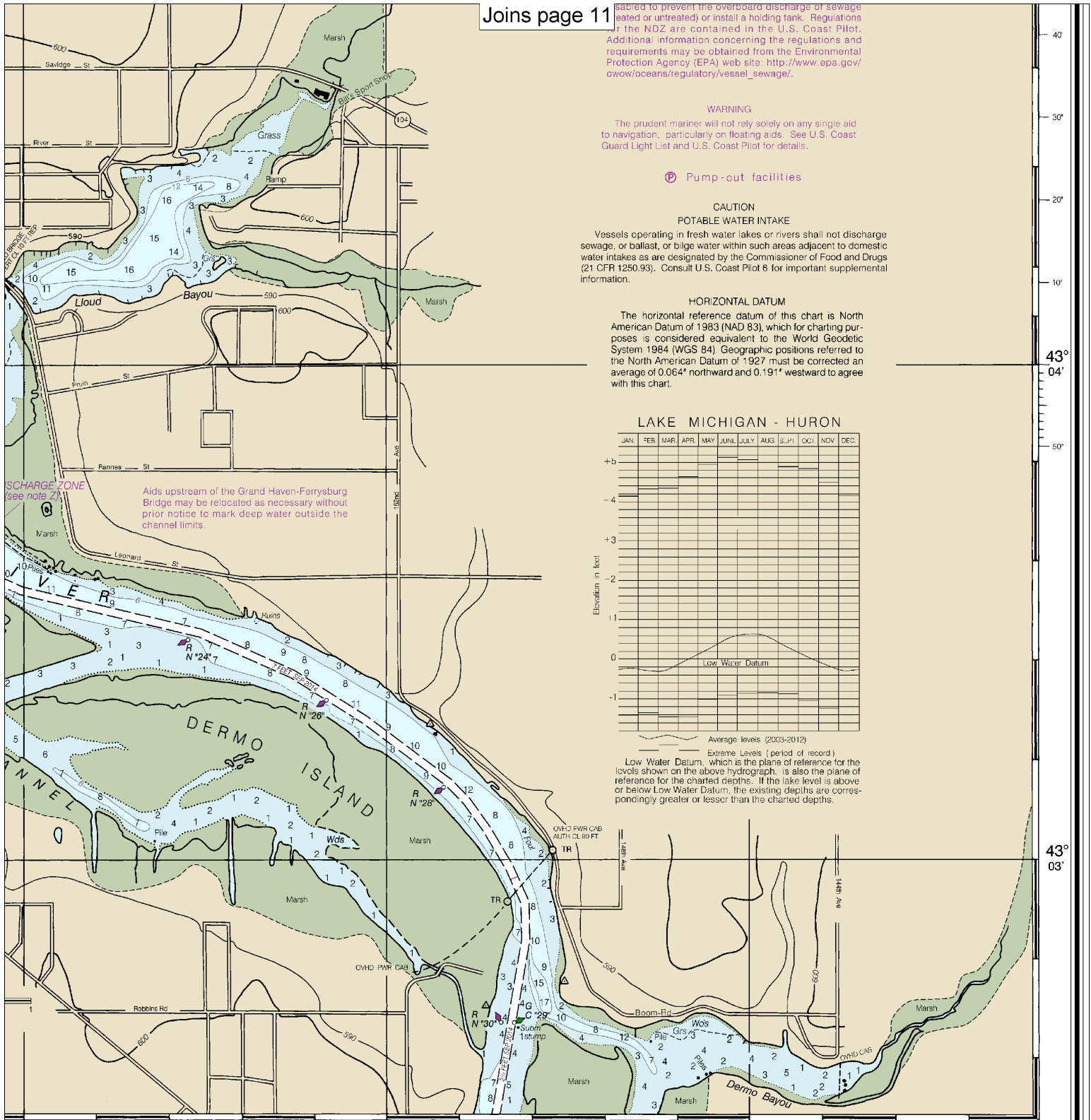
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**LAKE MICHIGAN - HURON**



Average levels (2003-2012)  
Extreme Levels (period of record)  
Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or less than the charted depths.



86°11' 86°10' CONTINUED ON CHART 14931 86°09' 845.1 X 765.8 mm

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Grand Haven  
SOUNDINGS IN FEET - SCALE 1:15,000

14933



## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Interactive chart catalog	—	<a href="http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml">http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.